

The Geographical Distribution of Cowries

(Mollusca : Gastropoda)

BY

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(2 Text figures)

THE FIRST ATTEMPT to outline the whole geographical distribution of the living species of cowries (Cypraeidae) has been made by HIDALGO (1906/07, p. 182-241); unfortunately HIDALGO was rather uncritical so that about 15 per cent of his indications of habitat are erroneous (SCHILDER 1952, p. 48). These zoogeographical studies have been continued by this writer in several papers (1924, 1927, 1932, 1940), especially in the "Prodrome" (1938/39) and in the catalogue of living and fossil Cypraeacea (1941), as well as by STEADMAN & COTTON (1946). Further studies made during the last twenty years show that many corrections are necessary, as many species proved to be more widely distributed than thought previously (e.g. SCHILDER 1964), whereas for other species the area of distribution should be restricted, because some indications seem not to be reliable (e.g. SCHILDER 1960).

Our present knowledge of the distribution of living cowries is still far from complete; nevertheless it seems to be advisable to publish a revised critical list. But one should consider that collecting beach specimens at any locality does not prove the species to live there (SPICER 1941, INGRAM & KENYON 1945): thus, for instance, I do not believe that the many Central Pacific cowries recently collected as beach shells at Clipperton Island (HERTLEIN & ALLISON 1960) really belong to the West American fauna. And even collecting single living specimens does not exclude their being introduced recently by man (SCHILDER 1960).

In my papers mentioned above I have used various systems of describing the distribution of cowries both as accurately and as briefly as possible, and STEADMAN & COTTON (1946) adopted a similar system of abbreviations.

In the present paper I shall try to introduce a system of classification of faunas not restricted to the warm seas inhabited by the cowries (Cypraeidae) and their allies (Ovulidae, Eratoidae) as before, but embracing all shores of the globe so that my proposed system may be used also by students of other littoral mollusca living in cold zones.

This universal system looks rather complicated, but it allows any degree of exact description of the distribution to be expressed in the shortest way, without using the names of localities which often can be found only with great difficulty in an atlas. It has been established on the following seven principles:

1—The classification of the zoogeographical zones and provinces ("faunas") follows the arrangement established by EKMAN (1935, p. 338, fig. 165; see also SCHILDER 1956(p. 85, fig. 36).

2—The denomination of these 9 provinces has been expressed by the digits 1 to 9 according to the chief points of the compass (SCHILDER 1956, p. 69): they begin with the centre and the north and proceed clock-wise so that the even figures designate the four chief quadrants of the compass, and the odd figures designate the intermediate directions. Therefore the nine digits express:

| | | |
|----------|-------------|----------|
| 9 = N.W. | 2 = N. | 3 = N.E. |
| 8 = W. | 1 = central | 4 = E. |
| 7 = S.W. | 6 = S. | 5 = S.E. |

According to this system, the five zones and the nine provinces of the littoral fauna (EKMAN 1935) may be arranged as follows:

| Zones: | | Provinces: | |
|---------------------------------------|--------------------|----------------------|-------------|
| Arctic | | 2 = Arctic | |
| Northern temperate (or boreal) | 9 = North Atlantic | 3 = North Pacific | |
| Tropical | 8 = Western | 1 = Indian | 4 = Pacific |
| Southern temperate (or antiboreal) | 7 = South American | 5 = South Australian | |
| Antarctic | | 6 = Antarctic | |

The Western province (8) called hesperotropical by SCHILDER (1956, p. 74) contains three well separable sub-provinces: the West-American, the East-American, and the West-African, while the Indian and the Pacific provinces (1+4) may be comprised as Indopacific super-province (called Indo-Westpacific by EKMAN 1935 and eotropical by SCHILDER 1956). The temperate South African province of EKMAN has been united with the tropical Indian province (1) for several reasons.

3—The regions usually extending 3,000 to 5,000 kilometers (SCHILDER 1939, p. 223, map 1 and 2) have been expressed by compound numbers the first digit of which indicates the province, the second digit indicates the relative place of the region within this province. The arrangement of the nine littoral provinces and 53 zoogeographical

regions of the globe has been illustrated in the map (fig. 1).

This systematic meaning of figures and its invariable use will permit remembering the numbers of regions far more easily than the rather arbitrary arrangement of numbers published by the Challenger Society (BORRA-DAILE 1914).

4—However, as errors frequently happen in writing or printing digits, it seems advisable (but not necessary) to add to each number the abbreviation of the name of the region, expressed by the three first letters printed in capitals (so that they cannot be confused with abbreviations of the areas, see below). The abbreviations of the 33 regions inhabited by Cypraeidae, which will be explained in the list of areas, are as follows:

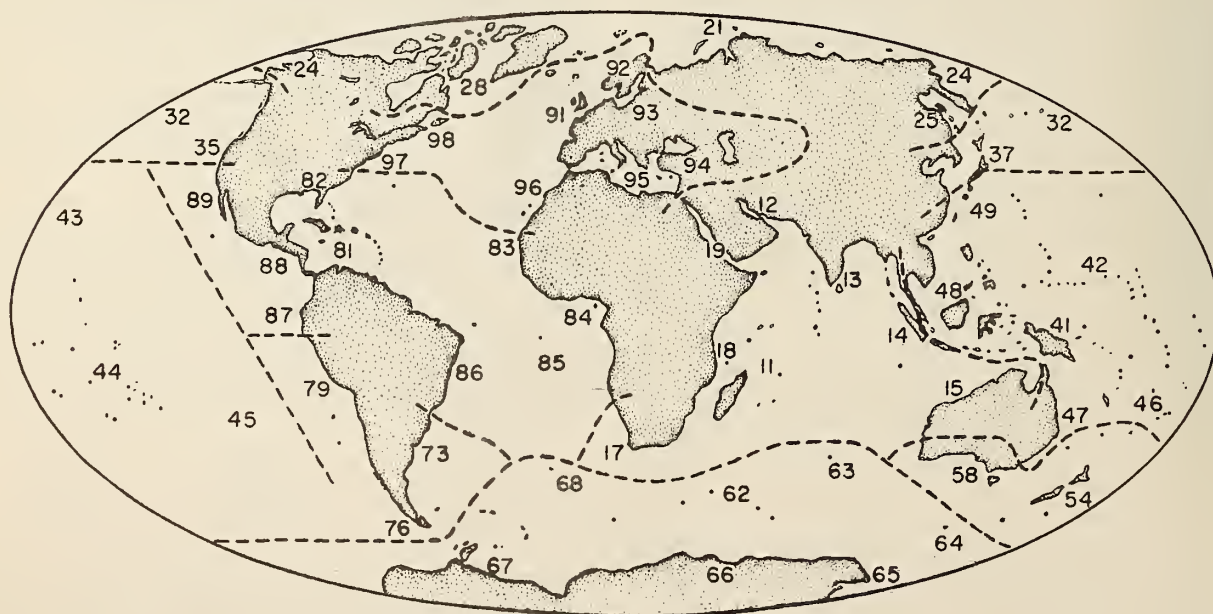


Figure 1: The littoral provinces and zoogeographical regions.

| | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 35 | 96 | 95 | | | 37 | | | |
| ORE | CAN | MED | | | JAP | | | |
| 89 | 82 | 83 | 19 | 12 | 13 | 49 | 42 | 43 |
| CAL | FLO | SEN | ERY | PER | IND | RYU | MIC | HAW |
| 88 | 81 | 84 | 18 | 11 | 14 | 48 | 41 | 44 |
| PAN | ANT | GUI | ZAN | LEM | SUM | MAL | MEL | POL |
| 87 | 86 | 85 | 17 | | 15 | 47 | 46 | 45 |
| ECU | BRA | ATL | CAP | | DAM | QUE | FIJ | RAP |
| | 73 | | | | 58 | 54 | | |
| | ARG | | | | TAS | ZEa | | |

5—The restriction of habitat to a general part of the region may be designated by a third digit added as an exponent.

6—But if a still greater accuracy in fixing the distribution of a species is desired, one indicates the areas the diameter of which is about one thousand kilometers ("Gebiete" in SCHILDER 1941) by a small letter mostly adopted from my last catalogue (SCHILDER 1941, p. 63-64): these letters correspond to the initial letter of a generally well known central place, island, etc. within the area, as explained in the following list.

7—Whenever one wants to designate the restricted occurrence within such a small area, one can add to the letters some exponential digits indicating the general direction within the area.

The 160 areas inhabited by living true cowries (Cyp-raeidae, according to SCHILDER 1938/39 and 1941) will be enumerated in the following list. They have been arranged generally so that neighbouring areas follow each other: we begin with West America, East America, Europe, and West Africa, always from north to south, we continue with the Indian Ocean from South and East Africa to South Asia and Australia, then with the Western

border of the Pacific from Melanesia to Japan, and we end with the central Pacific islands. The geographical relation of each area to the others has been shown in the map (fig. 2); the affinity of the cowrie faunas in these areas has been discussed by SCHILDER 1943.

In this list the left column contains the figures and letters by which the provinces, regions, and areas have been abbreviated in this paper. The central column indicates the names of provinces and regions (including their abbreviation by three capitals), as well as several localities, islands, etc. within each area without indicating its exact limits; the capital of a locality corresponding to the abbreviation of the area has been printed in *italics*. The figures of the right column indicate the average temperature of the surface of the sea in the coldest month (February or August) in centigrades according to the maps published by G. SCHOTT (1926, 1935).

LIST OF THE AREAS INHABITED BY LIVING
CYPRAEIDAE

| | | |
|-----|---|-------|
| 3 | North Pacific province (see also below) | |
| 35 | ORE = Oregonian region | |
| 35f | San Francisco: C. Mendocino to Obispo | 10-12 |
| 8 | Western (Atlanto-American) province | |
| 89 | CAL = Californian region | |
| 89d | San Diego: Santa Rosa to Cedros Is. | 13-18 |
| 89c | Cape San Lucas: Magdalena Bay to San José | 19-21 |
| 89g | Gulf of California north of the Tropic | 18-21 |
| 89m | Mazatlan and Tres Marias Is. | 22-24 |
| 89r | Revilla Gigedo Is. | 23-24 |
| 88 | PAN = Panamic region | |
| 88c | Clipperton Island | 27-28 |
| 88a | Acapulco: Manzanillo to Tehuantepec | 24-27 |
| 88s | San Salvador, San José to Coiba Island | 26-28 |

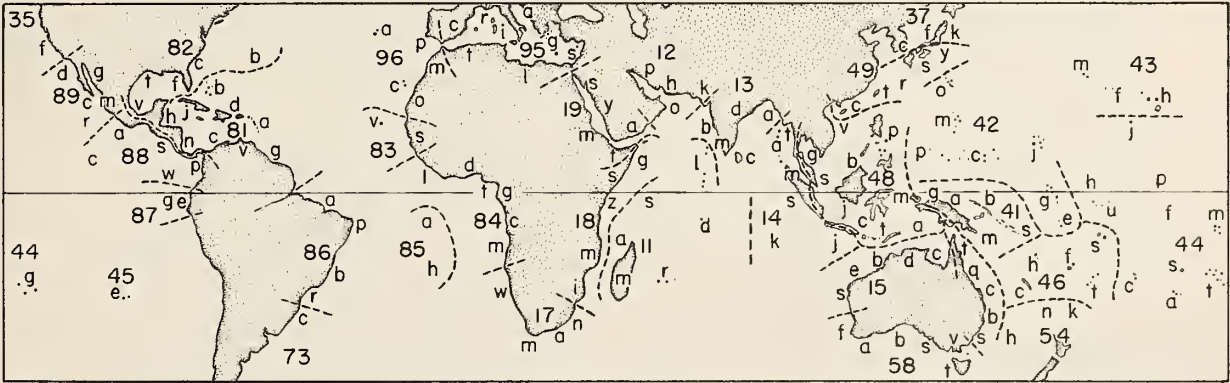


Figure 2: Geographical relation of the areas to each other.

| | | | | | |
|-----|---|-------|-----|--|-------|
| 88p | Gulf of Panama, Esmeraldas | 24-26 | 84 | GUI = Guinean region | |
| 88w | Cocos Island (<i>Wafer Bay</i>) | 26-27 | 84l | Liberia: Freetown to Ivory Coast | 25 |
| 87 | ECU = Ecuadorian region | | 84d | Dahomey: Ghana to Nigeria | 25 |
| 87e | Ecuador, North Peru: Manta to Sechura Bay | 17-23 | 84t | São Thomé: Principe to Annobon | 24-25 |
| 87g | Galapagos Islands | 20-22 | 84g | Cameroons, Fernando Poo, Gabun | 24-25 |
| 82 | FLO = Floridan region | | 84c | Congo River: Loango to Benguella | 18-23 |
| 82b | Bermudas | 20 | 84m | Mossamedes to Cunene River | 16-18 |
| 82c | Carolina: Cape Hatteras to Georgia | 15-19 | 85 | ATL = South Atlantic region | |
| 82f | Florida (East and West Coast), Key West | 20-24 | 85a | Ascension Island | 23-24 |
| 82t | Alabama to Texas | 20-22 | 85h | St. Helena Island | 20 |
| 82v | Vera Cruz: Tampico to Progreso | 23-26 | 1 | Indian province | |
| 81 | ANT = Antillean (Caribbean) region | | 17 | CAP = Cape (South African) region | |
| 81j | Cuba, Cayman Is., Jamaica | 25-26 | 17w | Walvis Bay to Saldanha Bay | 13-16 |
| 81b | Bahama Islands | 24-25 | 17m | Cape Town to Mossel Bay, Agulhas Bank | 15-17 |
| 81d | San Domingo (Hispaniola), Porto Rico | 25-26 | 17a | Algoa Bay to East London | 18-20 |
| 81a | Lesser Antilles: Saint Thomas to Grenada | 26 | 17n | Pondoland, Natal, Zululand | 20-21 |
| 81h | Arrowsmith Bank to Honduras | 26 | 18 | ZAN = Zanzibarian (East African) region | |
| 81n | Nicaragua to Colon | 26 | 18i | Inhambane: Delagoa Bay to Beira | 22-23 |
| 81c | Colombia from Darien to Rio Hacha | 26 | 18m | Mozambique: Quelimane to Querimba | 24 |
| 81v | Venezuela, Curaçao, Trinidad | 26 | 18z | Tanganyika, Zanzibar, Kenya | 25 |
| 81g | Guiana to Amazonas River | 26-27 | 18s | Somaland: Kismaju to Obbia | 23-25 |
| 86 | BRA = Brazilian region | | 18g | Hafun, Cape Guardafui, Socotra Island | 22-25 |
| 86a | Amazonas River to Parnahyba | 25-26 | 11 | LEM = Lemurian region | |
| 86p | Pernambuco to Fortaleza, Fernando Noronha | 24-26 | 11a | Comoro, Aldabra, Glorieuses, Providence | 24-25 |
| 86b | Bahía: Aracaju to Abrolhas | 24-25 | 11m | Nosi Bé, Madagascar, Europa Is. | 22-24 |
| 86r | Rio de Janeiro: Victoria to Santos | 18-23 | 11r | Réunion, Mauritius, Rodriguez | 22-23 |
| 7 | South American province | | 11c | Cargados Carajos to Galega Is. | 24-25 |
| 73 | ARG = Argentinian region | | 11s | Coetivy Is., Amirantes, Seychelles | 25-26 |
| 73c | Paranagua to Santa Catharina | 16-18 | 11d | Chagos Archipelago (<i>Diego Garcia</i>) | 26-27 |
| 9 | North Atlantic province | | 11l | Maldivé Is., Minicoy, Laccadive Is. | 27-28 |
| 95 | MED = Mediterranean region | | 19 | ERY = Erythraean (Red Sea) region | |
| 95c | Gibraltar to Catalonia, Balearic Is. | 13-14 | 19t | Tajura: Berbera to Perim Is. | 25-26 |
| 95r | Riviera: Southern France to Spezia | 10-13 | 19m | Massawa: Assab to Port Sudan | 21-25 |
| 95i | S. W. Italy, Sardinia, Sicily, Malta | 13-14 | 19s | Kosseir, Suez, Tor, Aqaba | 19-21 |
| 95a | Adriatic Sea north of Otranto and Valona | 12-13 | 19y | Hejaz, Jidda, Yemen, Mocha | 22-26 |
| 95g | Greece to Dardanelles, Crete, Rhodes | 14-16 | 19a | Aden to Makalla | 20-25 |
| 95s | Syria: Adalia to Alexandria, Cyprus | 16-17 | 12 | PER = Persian region | |
| 95l | Cyrenaica and Libya | 15-17 | 12o | Kuria Muria Is. to Oman | 22-23 |
| 95t | Tunisia, Algeria, North coast of Morocco | 14 | 12p | Persian Gulf west of 55° E. | 15-21 |
| 96 | CAN = Canarian region | | 12h | Strait of Hormuz, Mekran Coast | 21-22 |
| 96p | Portugal to Cape Tarifa | 13-15 | 12k | Karachi to Port Okha | 22-23 |
| 96m | West coast of Morocco: Tangiers to Ifni | 15-17 | 13 | IND = Indian region | |
| 96a | Azores | 15-16 | 13b | Bombay: Cambay Gulf to Goa | 23-26 |
| 96c | Madeira, Canary Islands | 17-18 | 13m | Malabar Coast: Mangalore to Tuticorin | 26 |
| 96o | Rio de Oro: Bojador to St. Louis | 13-15 | 13c | Ceylon and Adams Bridge | 27 |
| 8 | Western (Atlanto-American) province (continued) | | 13d | Deccan: Karikal to Orissa | 25-27 |
| 83 | SEN = Senegal region | | 13a | Calcutta to Arakan | 24-26 |
| 83v | Cape Verde Islands | 21-22 | 14 | SUM = Sumatran region | |
| 83s | Senegal: Dakar to Konakri | 19-24 | 14t | Tenasserim: Mergui Archipelago to Salang Is. | 26-28 |
| | | | 14m | Malacca Strait: Penang to Medan | 28 |
| | | | 14a | Andaman Is., Nicobar Is. | 27 |
| | | | 14s | West coast of Sumatra and adjacent islands | 28 |

- | | | | | | |
|-----------------------------|---|-------|-----|---|-------|
| 14j | South coast of Java, Christmas Is. | 26-28 | 49 | RYU = Ryukyu region (see NOMURA & HATAI 1936) | |
| 14k | Cocos Keeling Is. | 26 | 49c | China from Hainan to Amoy | 12-20 |
| 15 | DAM = Dampierian (North West Australian) region | | 49t | Pescadores Is., Taiwan (Formosa) | 18-24 |
| 15c | Gulf of Carpentaria | 25 | 49r | Ryukyu Is.: Sakishima to Tanegashima | 18-23 |
| 15d | Darwin: Wessel Is. to Wyndham | 26 | 49s | Shikoku: Kyushu to Kii coast | 14-16 |
| 15b | Cape Londonderry to Broome, Rowley Shoals | 23-26 | 49y | Yokohama: Ise to Chiba, Hachijoshima | 12-14 |
| 15e | Shellborough to Exmouth Gulf, Dampier Is. | 22-23 | | | |
| 15s | Shark Bay to Geraldton, Abrolhos Archipelago | 19-21 | | | |
| 5 South Australian province | | | | | |
| 58 | TAS = Tasmanian (South Australian) region | | 37 | JAP = (Northern) Japanese region (see NOMURA & HATAI 1936) | |
| 58f | Fremantle: Cervantes Is. to Cape Leeuwin | 17-18 | 37k | Kasima and East coast of North Hondo | 9-11 |
| 58a | Albany: Flinders Bay to Esperance | 14-17 | 37f | Fukui: Tsushima Strait to Echigo | 10-13 |
| 58b | Great Australian Bight around Eucla | 14 | 37c | South coast of Corea | 10 |
| 58s | Spencer Gulf to Beachport | 13-14 | | | |
| 58v | Victoria: Portland to Montague Island | 13-14 | 4 | Pacific province (continued) | |
| 58t | King Is., Flinders Is., Tasmania | 11-12 | 42 | MIC = Micronesian region | |
| 54 | ZE = Neozelanic region (see WHITLEY 1937, p. 199) | | 42o | Ogasawara Is. (Bonin Is.), Volcano Is. | 20-22 |
| 54k | Kermadec Islands | 17-18 | 42m | Marianas Islands, Guam Is. | 25-27 |
| 54n | Norfolk Island | 18-19 | 42p | Yap Is., Palau Is. | 27-28 |
| 54h | Lord Howe Islands, Middleton Reef | 17-18 | 42c | Caroline Is.: Uleay (Oreai) to Kusaie | 27-28 |
| 4 Pacific province | | | | | |
| 47 | QUE = Queensland (North East Australian) region | | 42j | Marshall Islands around Jaluit | 27-28 |
| 47s | Sydney: Ulladulla to Port Stephens | 15-17 | 42g | Gilbert Is. (Kingsmill Is.), Nauru Is. | 28 |
| 47b | Brisbane: Sugar Loaf Point to Fraser Is. | 18-19 | 42e | Ellice Islands, Rotuma Is. | 28 |
| 47c | Capricorn Is.: Hervey Bay to Whitsunday Is. | 19-20 | 44 | POL = Polynesian region | |
| 47q | North Queensland: Port Denison to C. Melville | 20-23 | 44h | Howland Is., Baker Is., Phoenix Is. | 27-28 |
| 47t | Torres Strait: C. Melville to Fly River | 23-26 | 44u | Union (Tokelau) Is. to Suvarov Is. | 26-27 |
| 46 | FIJ = Fijian (Southern Melanesian) region | | 44c | Cook Islands | 23-24 |
| 46c | Chesterfield Is., New Caledonia, Loyalty Is. | 22-24 | 44a | Austral Is. (Tubuai Is.) ¹ | 20-21 |
| 46h | New Hebrides | 23-26 | 44s | Society Is.: Raiatea to Tahiti | 24-25 |
| 46f | Fiji Islands | 24-25 | 44t | Tuamotu Is.: Makatea to Pinaki | 24-26 |
| 46t | Tonga (Friendly) Is., Niue (Savage) Is. | 22-24 | 44g | Gambier Is.: Marutea du Sud to Henderson Is. | 22-24 |
| 46s | Samoa Islands, Wallis Is. | 27-28 | 44m | Marquesas Islands | 26 |
| 41 | MEL = (Northern) Melanesian region | | 44f | Flint Is., Manahiki Is. to Malden Is. | 26-27 |
| 41s | Santa Cruz Is., Solomon Is., Nissan Is. | 27-28 | 44p | Line Is.: Jarvis Is. to Palmyra Is. | 26 |
| 41b | Bismarck Archipelago, Admiralty Is. | 28 | 44j | Johnston Island | 25 |
| 41m | Port Moresby to Louisiade Archipelago | 27 | 45 | RAP = Rapanuian Region | |
| 41a | Astrolabe Bay: Huon Gulf to Aitapé | 28 | 45e | Easter Island (Rapanui) | 19-20 |
| 41g | Humboldt Bay to Geelvink Bay, Mapia Is. | 28 | 43 | HAW = Hawaiian region | |
| 48 | MAL = Malayan (Indonesian) region | | 43h | Hawaii to Kauai | 23-24 |
| 48m | N.W. New Guinea, Moluccas, North Celebes | 28 | 43f | French Frigate Shoals, Laysan Is. | 21-22 |
| 48a | S. W. New Guinea, Aru Is., Kei Is., Timorlaut | 26-27 | 43m | Midway Is.: Pearl-Hermes Reef to Kure Is. | 19-21 |
| 48t | Timor to Bali | 26-27 | | | |
| 48c | South Celebes, S.E. Borneo, Tiger Is. | 27 | | | |
| 48j | Bawean Is., North coast of Java | 27 | | | |
| 48s | Belitong, S.E. Sumatra, Singapore, S.W. Borneo | 27 | | | |
| 48g | Gulf of Siam: Thailand to Pulo Condor | 25-28 | | | |
| 48b | Natuna Is., Sarawak, N. Borneo, Tizard Bank | 26-27 | | | |
| 48p | Palawan, Philippine Is. | 26-27 | | | |
| 48v | Vietnam (Annam, Tongking) Paracel Reefs | 20-24 | | | |

The following list contains the living cowrie species and several degrees of subspecific rank, i. e.

(p) = prospecies of almost specific rank,

(s) = morphologically well recognizable subspecies (races),

(m) = morphologically well recognizable local mutants,

¹ As only one cowrie species (*Luria isabella lekalekana* LADD) is known from these rarely visited islands, the area generally has been treated in the list as if it were non existing or united with 44c.

- (c) = clines which are morphologically recognizable in extreme areas only, but elsewhere gradually pass into the typical species,
 (i) = geographically separated, but otherwise hardly recognizable infra-species;

the other "races" distinguished by SCHILDER 1938/39 have been suppressed, as they need further research concerning both characters and exact range.

The arrangement of species agrees with my latest catalogue (SCHILDER 1941) except if recent anatomical research made changes necessary.

The areas inhabited have been arranged according to the preceding list. The regions have been indicated both by the abbreviation consisting of three capitals and by the number composed of the digits of the province and the region within; these figures are followed by the small letters indicating the areas of the region in which the species actually has been found (the letter x indicates occurrence in the region without exact area known). These letters have been replaced by an asterisk (*) if evidently all areas of the region are inhabited, even if less common species have not yet been reported from less investigated areas which are surrounded by inhabited areas; if, however, some few areas situated at the border of the distribution of the species evidently are not any more inhabited because of unfavorable conditions chiefly in temperature, the letters of such excluded areas have been added to the asterisk separated by a minus (—). Doubtful occurrence has been put in parentheses; probably artificial introduction by man (as dead or even living specimens) have been marked by a preceding cross (×) thus becoming separated from the genuine distribution. Evidently erroneous indications of habitat have been omitted.

CYPRAEIDAE GRAY, 1824

Cypraeorbinæ SCHILDER, 1939

Bernaya JOUSSEAUME, 1884

(*Protocypraea* SCHILDER, 1927)

teulèrei (CAZENAVETTE, 1846) ERY: 19my^a PER: 12h^a(op)

fultoni (SOWERBY, 1903) CAP: 17n(a)

(*Bernaya* JOUSSEAUME, 1884)

catei SCHILDER, 1963 DAM: 15s⁷

Zoila JOUSSEAUME, 1884

decipiens (SMITH, 1880) DAM: 15bes²

venusta (SOWERBY, 1846) DAM: 15e (TAS: 58f²)

(s)*episema* IREDALE, 1939 TAS: 58f⁰

(m)*sorrentensis* SCHILDER, 1963 (DAM: 15s⁷) TAS: 58f²

thersites (GASKOIN, 1849) TAS: 58s

(c)*contraria* IREDALE, 1935 TAS: 58b

friendii (GRAY, 1831) TAS: 58f

(e)*vercoi* SCHILDER, 1930 TAS: 58a

marginata (GASKOIN, 1849) DAM: 15s⁷ TAS: 58f²(a²)

rosselli (COTTON, 1948) TAS: 58f

Siphocypraea HEILPRIN, 1887

(*Akleistostoma* GARDINER, 1948)

mus (LINNAEUS, 1758) ANT: 81cv(a)

Cypraeinae SCHILDER, 1939

(Cypraeini SCHILDER, 1927)²

Trona JOUSSEAUME, 1884

stercoraria (LINNAEUS, 1758) SEN: 83s GUI: 84*

Macrocypraea SCHILDER, 1930

zebra (LINNAEUS, 1758) FLO: 82*(—b) ANT: 81*(—g)

(i) *dissimilis* (SCHILDER, 1924) BRA: 86pbr ARG: 73c

cervus (LINNAEUS, 1771) FLO: 82* ANT: 81j(da²)

(p) *cervinetta* (KIENER, 1843) CAL: 89cgm PAN: 88*—cw ECU: 87* × MIC: 42j

Mauritia TROSCHEL, 1863

valentia (PERRY, 1811) QUE: 47t

mappa (LINNAEUS, 1758) (ZAN: 18z) (LEM: 11m) DAM: 15c QUE: 47cqt FIJ: 46* MEL: 41* MAL: 48*—gv RYU: 49tr MIC: 42*—o POL: 44*—gj

(c) *geographica* SCHILDER & SCHILDER, 1933 SUM: 14aj(ms)

(s) *alga* (PERRY, 1811) ZAN: 18z LEM: 11* (ERY: 19tm) (IND: 13c)

eglantina (DUCLOS, 1833) SUM: 14j(ms) DAM: 15*—s ZEA: 54h QUE: 47*—s FIJ: 46*—t MEL: 41* MAL: 48*—gbv RYU: 49tr(c) MIC: 42c(jg)(e)

² Ed. note: As we have no typographical provision for Dr. Schilder's taxon, the "infrafamily", we now introduce this type style to designate this taxon: (Infrafamily). While each lower taxon is indented one full space (an m-space), the infrafamily is indented only one half space more than the Subfamily.

histrion (GMELIN, 1791) (CAP: 17n) ZAN: 18imz
LEM: 11* IND: 13* SUM: 14*
—tm

(c) *westralis* (IREDALE, 1935) DAM: 15: dbc
grayana SCHILDER, 1930 ZAN: 18s^g (LEM: 11s)
ERY: 19* PER: 12* IND: 13b

arabica (LINNAEUS, 1758) SUM: 14* DAM: 15* ZEA:
54h QUE: 47* FIJ: 46*
MEL: 41* MAL: 48* RYU: 49*
MIC: 42*

(c) *dilacerata* SCHILDER & SCHILDER, 1939 IND: 13*

(s) *immanis* SCHILDER & SCHILDER, 1939 CAP:
17an ZAN: 18*—g LEM: 11*
maculifera SCHILDER, 1932 FIJ: 46sf(cht) (MAL: 48p)
RYU: 49trs MIC: 42*—o
POL: 44* HAW: 43*—m × PAN:
88cs

depressa (GRAY, 1824) FIJ: 46* MEL: 41b MAL:
48p (RYU: 49trs) MIC: 42*—o
POL: 44*—j × PAN: 88c

(i) *dispersa* SCHILDER & SCHILDER, 1939 ZAN: 18z
LEM: 11sl IND: 13mc
SUM: 14sjk

mauritiana (LINNAEUS, 1758) (CAP: 17an) ZAN: 18*
LEM: 11* ERY: 19tma
(PER: 12o)

(i) *regina* (GMELIN, 1791) IND: 13*—b SUM:
14* DAM: 15b QUE: 47* FIJ:
46* MEL: 41* MAL: 48* RYU:
49*(—c) MIC: 42* POL: 44*
HAW: 43*

scurra (GMELIN, 1791) ZAN: 18mz LEM: 11* IND:
13mc SUM: 14asj DAM: 15x

(s) *indica* (GMELIN, 1791) (SUM: 14j) QUE:
47* FIJ: 46* MEL: 41*
MAL: 48*(*)
RYU: 49tr MIC: 42*—o POL:
44* HAW: 43* × PAN: 88c

Talparia TROSCHER, 1863

talpa (LINNAEUS, 1758) CAP: 17n ZAN: 18* LEM:
11* ERY: 19* PER: 12o
IND: 13mcd SUM: 14tasj DAM:
15*—s QUE: 47cqt FIJ: 46*
MEL: 41* MAL: 48*—sgv RYU:
49trs MIC: 42*—o POL: 44*
HAW: 43*

exusta (SOWERBY, 1832) ERY: 19*—s(a)

Cypraea LINNAEUS, 1758

tigris LINNAEUS, 1758 CAP: 17n ZAN: 18* LEM: 11*
ERY: 19ta

(i) *pardalis* SHAW, 1795 IND: 13*—b SUM: 14*
DAM: 15bes ZEA: 54h QUE:
47cqt FIJ: 46* MEL: 41* MAL:
48*—g RYU: 49*(—y) MIC:
42* POL: 44*—j

(c) *schilderiana* CATE, 1961 POL: 44j
HAW: 43*

(hybrid) *catulus* SCHILDER, 1924, 1962 ERY:
19a(t)

pantherina SOLANDER, 1786 ERY: 19*

Lyncina TROSCHER, 1863

aurantium (GMELIN, 1791) FIJ: 46* MEL: 41sb
MAL: 48p^o MIC: 42*—o
POL: 44cst

broderipi (SOWERBY, 1832) CAP: 17n (LEM: 11m)
nivosa (BRODERIP, 1827) (LEM: 11r) IND: 13cd
SUM: 14t

leucodon (BRODERIP, 1828) LEM: 11d

argus (LINNAEUS, 1758) ZAN: 18z LEM: 11* IND:
13cd SUM: 14asj DAM: 15es²
QUE: 47cqt FIJ: 46* MEL: 41*
MAL: 48*—g RYU: 49tr
MIC: 42*—o POL: 44up

lynx (LINNAEUS, 1758) CAP: 17n ZAN: 18* LEM:
11* ERY: 19* IND: 13cd
SUM: 14* DAM: 15*—s ZEA: 54h
QUE: 47* FIJ: 46* MEL: 41*
MAL: 48* RYU: 49*—cy MIC:
42*—o POL: 44* HAW: 43*

vitellus (LINNAEUS, 1758) CAP: 17an ZAN: 18*
LEM: 11* (ERY: 19a) IND:
13cd SUM: 14* DAM: 15*
(TAS: 58f) ZEA: 54h QUE: 47*
FIJ: 46* MEL: 41* MAL: 48*
RYU: 49*—c MIC: 42* POL:
44*—g HAW: 43* × PAN: 88c

camelopardalis (PERRY, 1811) ERY: 19*—s(a)

reevei (SOWERBY, 1832) TAS: 58fabs

ventriculus (LAMARCK, 1810) FIJ: 46* MEL: 41sb
MAL: 48p MIC: 42*—o POL:
44*—j

schilderorum (IREDALE, 1939) FIJ: 46cfs (MAL: 48p)
MIC: 42*—o POL: 44* HAW:
43* × PAN: 88c

(i) *kuroharai* (KURODA & HABE, 1961) RYU: 49rs
sulcidentata (GRAY, 1824) HAW: 43*

carneola (LINNAEUS, 1758) CAP: 17an ZAN: 18*
LEM: 11* ERY: 19* PER: 12*
IND: 13* SUM: 14*—tk DAM: 15*
ZEA: 54kh QUE: 47* FIJ: 46*

- MEL: 41* MAL: 48* RYU: 49*-c
MIC: 42* POL: 44* HAW: 43h
(m) *titan* SCHILDER & SCHILDER, 1962 ZAN: 18mz
LEM: 11mr
(m) *leviathan* (SCHILDER & SCHILDER, 1937) (POL:
44*-hu) HAW: 43hf
(Luriini SCHILDER, 1932)
Chelycypraea SCHILDER, 1927
testudinaria (LINNAEUS, 1758) (QUE: 47*-s FIJ: 46*
MEL: 41* MAL: 48mp RYU:
49trs MIC: 42*-o POL: 44*-j
(i) *ingens* (SCHILDER & SCHILDER, 1938) (CAP:
17n) ZAN: 18mz LEM: 11*
IND: 13c
Luria JOUSSEAUME, 1884
tessellata (SWAINSON, 1822) (POL: 44h) HAW: 43*
pulchra (GRAY, 1828) ERY: 19tma [s=fossil only]
PER: 12oph
isabella (LINNAEUS, 1758) CAP: 17an ZAN: 18*
LEM: 11* ERY: 19* IND: 13c
(c) *lekalekana* (LADD, 1934) SUM: 14*-tm
DAM: 15* ZEA: 54kh QUE: 47*
FIJ: 46* MEL: 41* MAL: 48*
RYU: 49*-c MIC: 42*
POL: 44*(-j)
(c) *controversa* (GRAY, 1824) HAW: 43*
(p) *mexicana* (STEARNS, 1893) CAL: 89cgmr
PAN: 88cw (ECU: 87g)
cinerea (GMELIN, 1791) FLO: 82* ANT: 81*
BRA: 83*-r
lurida (LINNAEUS, 1758) MED: 95* CAN: 96*
SEN: 83* GUI: 84*-m
(i) *oceanica* SCHILDER, 1930 ATL: 85*
Nariinae SCHILDER, 1932
(Pustulariini SCHILDER, 1932)
Pustularia SWAINSON, 1840
(*Annepona* IREDALE, 1939)
mariae SCHILDER, 1927 FIJ: 46* MEL: 41sb MAL:
48p RYU: 49r MIC: 42*-o
POL: 44* HAW: 43h
(*Pustularia* SWAINSON, 1840)
globulus (LINNAEUS, 1758) IND: 13c SUM: 14asj
DAM: 15s² QUE: 47xt
FIJ: 46*-t MEL: 41* MAL: 48*-g
RYU: 49trs MIC: 42*-o
(POL: 44p)
(s) *brevirostris* SCHILDER & SCHILDER, 1938 (CAP:
17n) ZAN: 18z LEM: 11*
(p) *nov. prospec.* HAW: 43h
margarita (DILLWYN, 1817) FIJ: 46*-t MEL: 41sba
MAL: 48p MIC: 42* POL: 44*-
gmj
(i) *tricornis* (JOUSSEAUME, 1874) LEM: 11r(s)
(ERY: 19a)
cicercula (LINNAEUS, 1758) SUM: 14tasj DAM: 15c
QUE: 47c(s) FIJ: 46*(-s)
MEL: 41*-m MAL: 48*-v
RYU: 49trs MIC: 42c POL: 44c
(i) *lienardi* (JOUSSEAUME, 1874) ZAN: 18z
LEM: 11rsd ERY: 19a
(s) *tetsuakii* KIRA, 1959 RYU: 49r HAW: 43*
bistrinotata SCHILDER & SCHILDER, 1937 (IND: 13c)
SUM: 14*-t DAM: 15c (ZEA:
54h) QUE: 47* FIJ: 46* MEL:
41* MAL: 48 -v RYU: 49trs^o
MIC: 42* POL: 44* HAW: 43*
(*Ipsa* JOUSSEAUME, 1884)
childreni (GRAY, 1825) FIJ: 46* MEL: 41sba MAL:
48gbp RYU: 49trs MIC: 42*-o
POL: 44* HAW: 43*
(i) *lemurica* SCHILDER & SCHILDER, 1938 LEM:
11rd SUM: 14j^o
Propustularia SCHILDER, 1927
surinamensis (PERRY, 1811) ANT: 8lav²(g)
(Nariini SCHILDER, 1932)
Monetaria TROSCHEL, 1863
annulus (LINNAEUS, 1758) CAP: 17an(m) ZAN: 18*
LEM: 11* ERY: 19* PER: 12o
IND: 13* SUM: 14* DAM:
15*-es ZEA: 54h QUE: 47*
FIJ: 46* MEL: 41* MAL: 48*
RYU: 49*-c JAP: 37kf MIC: 42*
POL: 44hucfp
(c) *obvelata* (LAMARCK, 1810) POL: 44cstgmf
moneta (LINNAEUS, 1758) CAP: 17man ZAN: 18*
LEM: 11* ERY: 19* PER: 12o
IND: 13* SUM: 14* DAM: 15*
ZEA: 54h QUE: 47* FIJ: 46*
MEL: 41* MAL: 48* RYU: 49*-c
JAP: 37f MIC: 42* POL: 44*
HAW: 43h × PAN: 88cw
× ECU: 87g
Naria BRODERIP, 1837
irrorata (GRAY, 1828) FIJ: 46s(c) MEL: 41sb
MIC: 42*-op POL: 44*-j

- Erosaria* TROSCHER, 1863
 (*Paulonaria* IREDALE, 1930)
dillwyni (SCHILDER, 1922) FIJ: 46ft's (MIC: 42mg)
 POL: 44ucstg
becki (GASKOIN, 1836) (FIJ: 46c) MEL: 41bg
 MAL: 48m²p RYU: 49trs
 MIC: 42*-o POL: 44u
 (HAW: 43h)
macandrewi (SOWERBY, 1870) ERY: 19t²ms
 (*Erosaria* TROSCHER, 1863)
labrolineata (GASKOIN, 1849) SUM: 14j DAM: 15e
 ZEA: 54h QUE: 47* FIJ: 46*-t
 MEL: 41* MAL: 48*-v RYU:
 49*(-c) MIC: 42* POL: 44u
cernica (SOWERBY, 1870) (CAP: 17n) LEM: 11rd
 (i) *viridicolor* (CATE, 1962) DAM: 15es(c)
 (TAS: 58f)
 (s) *tomlini* SCHILDER, 1930 ZEA: 54knh QUE:
 47sb FIJ: 46c(h)
 (s) *ogasawarensis* SCHILDER, 1944 RYU: 49rsy
 MIC: 42o POL: 44h HAW: 43*
citrina (GRAY, 1825) CAP: 17an × LEM: 11m
gangranosa (DILLWYN, 1817) (CAP: 17n) ZAN:
 18z(m) LEM: 11l ERY: 19ta
 IND: 13mc(a) SUM: 14asj
 MEL: 41g MAL: 48mt²cjs
boivini (KIENER, 1843) SUM: 14j MAL: 48*-av
 RYU: 49sy
 (p) *ostergaardi* (DALL, 1921) HAW: 43*
helvola (LINNAEUS, 1758) CAP: 17n ZAN: 18* LEM:
 11* ERY: 19ta(m) IND: 13cd(m)
 SUM: 14*-t DAM: 15* TAS:
 58fa⁸ ZEA: 54h QUE: 47* FIJ:
 46* MEL: 41* MAL: 48* RYU:
 49*-c JAP: 37f MIC: 42* POL:
 44* HAW: 43* × PAN: 88c
 (c) *meridionalis* SCHILDER & SCHILDER, 1938 CAP:
 17an
caputserpentis (LINNAEUS, 1758) CAP: 17an ZAN:
 18*-sg LEM: 11* IND: 13mcd
 SUM: 14* DAM: 15*-s ZEA: 54kn
 (QUE: 47t) FIJ: 46* MEL: 41*
 MAL: 48* RYU: 49* JAP: 37f
 MIC: 42* POL: 44*-j × PAN: 88cs
 (c) *kenyonae* SCHILDER & SCHILDER, 1938 DAM:
 15es TAS: 58fa
 (c) *caputanguis* (PHILIPPI, 1849) ZEA: 54h
 QUE: 47sbc
 (c) *caputophidii* SCHILDER, 1927 HAW: 43*
caputdraconis (MELVILL, 1888) RAP: 45c
albuginosa (GRAY, 1825) CAL: 89*-d PAN: 88cw(sp)
 ECU: 87*
spurca (LINNAEUS, 1758) MED: 95* CAN: 96*
 SEN: 83* GUI: 84*-m
 (s) *sanctae-helenae* SCHILDER, 1930 ATL: 85*
 (p) *acicularis* (GMELIN, 1791) FLO: 82*-bc
 ANT: 81*-hnc BRA: 86*
poraria (LINNAEUS, 1758) ZAN: 18z LEM: 11* IND:
 13c SUM: 14sj DAM: 15e
 (i) *scarabaeus* (BORY, 1827) ZEA: 54kh QUE:
 47s FIJ: 46* MEL: 41sba
 MAL: 48mbp RYU: 49*-c
 MIC: 42* POL: 44*-gm
 HAW: 43*
erosa (LINNAEUS, 1758) CAP: 17an ZAN: 18*-sg
 LEM: 11* IND: 13cd SUM: 14*
 DAM: 15*-s ZEA: 54k QUE: 47*-s
 FIJ: 46* MEL: 41* MAL: 48*-v
 RYU: 49* MIC: 42* POL: 44*-m
 HAW: 43h
 (c) *pulchella* COEN, 1949 ZEA: 54h QUE: 47sb
 (p) *nebrites* (MELVILL, 1888) ZAN: 18zsg ERY:
 19* PER: 12ohk IND: 13b
ocellata (LINNAEUS, 1758) LEM: 11l (ERY: 19ta)
 PER: 12hk IND: 13* SUM: 14j
marginalis (DILLWYN, 1827) CAP: 17an ZAN: 18*
 LEM: 11rs ERY: 19a PER: 12o
miliaris (GMELIN, 1791) SUM: 14j DAM: 15* QUE:
 47* MEL: 41mg MAL: 48*
 RYU: 49* MIC: 42p × ZAN: 18z
 (s) *eburnea* (BARNES, 1824) QUE: 47bcq FIJ:
 46chf(t) MEL: 41* (MAL: 48p)
 (p) *lamarcki* (GRAY, 1825) CAP: 17an ZAN:
 18*-g LEM: 11am
 (c) *redimita* (MELVILL, 1888) LEM: 11*-a
 PER: 12k IND: 13*-a SUM:
 14tmas
turdus (LAMARCK, 1810) ZAN: 18z²sg ERY: 19*
 (c) *winckworthi* SCHILDER & SCHILDER, 1938
 PER: 12* × CAP: 17a
guttata (GMELIN, 1791) FIJ: 46h MEL: 41sb
 MIC: 42c
 (i) *azumai* SCHILDER, 1960 RYU: 49s
Staphylaea JOUSSEAUME, 1884
staphylaea (LINNAEUS, 1758) CAP: 17an ZAN: 18*
 LEM: 11* (ERY: 19a) IND:
 13c(b) SUM: 14tasj DAM: 15be
 ZEA: 54h QUE: 47* FIJ: 46*
 MEL: 41* MAL: 48*-v RYU:
 49*-c MIC: 42*-o POL: 44ucst

limacina (LAMARCK, 1810) CAP: 17n ZAN: 18imz
 LEM: 11*-1 IND: 13c SUM: 14sj
 DAM: 15bes ZEA: 54h QUE: 47*-s
 FIJ: 46* MAL: 48*-agv RYU: 49*
 JAP: 37f MIC: 42m
semiplota (MIGHELS, 1845) HAW: 43*

Nuclearia JOUSSEAU, 1884

nucleus (LINNAEUS, 1758) ZAN: 18* LEM: 11* ERY:
 19* IND: 13c SUM: 14*-k DAM:
 15e ZEA: 54h QUE: 47cqt FIJ:
 46* MEL: 41* MAL: 48* RYU:
 49* MIC: 42* POL: 44*-j
 HAW: 43* [rare]
 (p) *granulata* (PEASE, 1862) POL: 44j
 HAW: 43*

Cypraeovulinae SCHILDER, 1930

(Zonariini SCHILDER, 1932)

Schilderia TOMLIN, 1930

achatidea (SOWERBY, 1837) MED: 95crit (gl)
 (i) *inopinata* SCHILDER, 1930 GUI: 84m
langfordi (KURODA, 1938) RYU: 49s
 (s) *nov. subsp.* QUE: 47b
hirasei (ROBERTS, 1913) RYU: 49s
teramachii (KURODA, 1938) RYU: 49s

Zonaria JOUSSEAU, 1884

(*Zonaria* JOUSSEAU, 1884)

zonaria (GMELIN, 1791) CAN: 96o SEN: 83s
 GUI: 84*-m
 (m) *gambiensis* (SHAW, 1909) SEN: 83s
picta (GRAY, 1824) (CAN: 96c) SEN: 83*
sanguinolenta (GMELIN, 1791) SEN: 83s
pyrum (GMELIN, 1791) MED: 95* CAN: 96*(-a)
 SEN: 83s
 (c) *senegalensis* SCHILDER, 1928 SEN: 83s
 (i) *angolensis* (ODHNER, 1923) GUI: 84m
 (p) *petitiana* (CROSSE, 1872) SEN: 83s
 (GUI: 84tg)
annettae (DALL, 1909) CAL: 89cgm
 (p) *aequinoctialis* SCHILDER, 1933 ECU: 87e

(*Neobernaya* SCHILDER, 1927)

spadicea (SWAINSON, 1823) ORE: 35f^a CAL: 89d
 (*Pseudozonaria* SCHILDER, 1927)
robertsi (HIDALGO, 1906) CAL: 89cgm PAN: 88asp
 ECU: 87e

nigropunctata (GRAY, 1828) ECU: 87*
arabica (LAMARCK, 1810) CAL: 87cgm PAN: 88asp
 ECU: 87*

(Cypraeovulini SCHILDER, 1941)

Cypraeovula GRAY, 1824

(*Luponia* BRODERIP, 1837)

fuscovulva (SHAW, 1909) CAP: 17w^ama
fuscodentata (GRAY, 1825) CAP: 17ma
algoensis (GRAY, 1825) CAP: 17ma
edentula (GRAY, 1825) CAP: 17a(n^o)

(*Cypraeovula* GRAY, 1824)

amphithales (MELVILL, 1888) CAP: 17a(n)
capensis (GRAY, 1828) CAP: 17a(n)

Umbilia JOUSSEAU, 1884

armeniaca (VERCO, 1912) TAS: 58b
 (p) *hesitata* (IREDALE, 1916) TAS: 58vt QUE: 47s

Notocypraea SCHILDER, 1927

pulicaria (REEVE, 1846) TAS: 58fa^s
bicolor (GASKOIN, 1849) TAS: 58bsvt
 (m) *wilkinsi* (GRIFFITHS, 1959) TAS: 58v¹
 (c) *reticulifera* (SCHILDER, 1924) TAS: 58a
 (i) *euclia* (STEADMAN & COTTON, 1946) TAS:
 58b^s
 (s) *occidentalis* IREDALE, 1935 TAS: 58f^s
piperita (GRAY, 1825) TAS: 58f^absv
 (i) *dissecta* IREDALE, 1931 TAS: 58v^a
 (s) *comptoni* (GRAY, 1847) TAS: 58a^absvt
 (m) *casta* SCHILDER & SUMMERS, 1963 TAS: 58s^a
 (c) *mayi* (BEDDOME, 1898) TAS: 58vt
angustata (GMELIN, 1791) TAS: 58svt
 (i) *moelleri* (IREDALE, 1931) TAS: 58v^a
 (p) *declivis* (SOWERBY, 1870) TAS: 58v^at

(Erroneini SCHILDER, 1930)

Erronea TROSCHER, 1863

(*Gratiadusta* IREDALE, 1930)

walkeri (SOWERBY, 1832) LEM: 11csl SUM: 14as
 [j fossil only] DAM: 15che QUE:
 47*(-s) (MEL: 41b) MAL:
 48*-v RYU: 49r(s) Mic: 42c
 (p) *bregeriana* (CROSSE, 1868) FIJ: 46cf
 (MEL: 41m)
pyriformis (GRAY, 1824) IND: 13cd SUM: 14tm
 QUE: 47cqt MAL: 48*-gbv
 (c) *smithi* (SOWERBY, 1881) DAM: 15dbe

- pulchella* (SWAINSON, 1823) MAL: 48p RYU: 49ctr
 (s) *novaebritanniae* SCHILDER & SCHILDER, 1937
 FIJ: 46f MEL: 41b
 (s) *pericalles* (MELVILL & STANDEN, 1904) ERY:
 tm^a PER: 12oph
hungerfordi (SOWERBY, 1888) RYU: 49sy
 (s) *coucomi* SCHILDER, 1964 QUE: 47b
barclayi (REEVE, 1837) (CAP: 17n) LEM: 11d(r)
 (*Adusta* JOUSSEAUME, 1884)
xanthodon (SOWERBY, 1832) QUE: 47*(-t)
vredenburgi SCHILDER, 1927 SUM: 14j MAL: 48t^a(m²)
pallida (GRAY, 1828) PER: 12*-o IND: 13* SUM:
 14tm MAL: 48s(g) × ERY: 19a
 (c) *insulicola* SCHILDER & SCHILDER, 1938 SUM:
 14s^e MAL: 48j
subviridis (REEVE, 1835) QUE: 47* FIJ: 46c
 (p) *dorsalis* SCHILDER & SCHILDER, 1938 DAM:
 15* (MAL: 48a)
onyx (LINNAEUS, 1758) (SUM: 14j) MEL: 41g
 MAL: 48* RYU: 49* MIC: 42m
 (s) *melanesiae* SCHILDER & SCHILDER, 1937
 MEL: 41b
 (p) *adusta* (LAMARCK, 1810) ZAN: 18imz LEM:
 11*-rd PER: 12*-o IND: 13*
 SUM: 14ta
 (m) *nymphae* (JAY, 1850) LEM: 11rd
 (*Erronea* TROSCHER, 1863)
ovum (GMELIN, 1791) SUM: 14sj DAM: 15b QUE:
 47cqt MEL: 41* MAL: 48*
 RYU: ctr MIC: 42p
errones (LINNAEUS, 1758) IND: 13*-ba SUM: 14*-k
 DAM: 15*-s ZEA: 54h QUE:
 47* FIJ: 46* MEL: 41* MAL:
 48* RYU: 49* MIC: 42mpc(g)
 POL: 44c(p) (×) ZAN: 18z(s)
cylindrica (BORN, 1778) SUM: 14sj QUE: 47*-s FIJ:
 46h(c) MEL: 41* MAL: 48*-v
 RYU: 49tr(s) MIC: 42mp(g)
 (s) *sowerbyana* SCHILDER, 1932 DAM: 15*-s
caurica (LINNAEUS, 1758) CAP: 17an ZAN: 18*
 LEM: 11* ERY: 19* PER: 12*
 IND: 13*-da SUM: 14*-k DAM:
 15* ZEA: 54h QUE: 47* FIJ:
 46* MEL: 41* MAL: 48* RYU:
 49trs MIC: 42*-o POL: 44c
 (*Melicerona* IREDALE, 1930)
felina (GMELIN, 1791) CAP: 17an ZAN: 18imz
 LEM: 11m(a)
 (c) *fabula* (KIENER, 1843) ERY: 19tma
 PER: 12*
 (p) *listeri* (GRAY, 1824) LEM: 11*-am IND: 13*-a

SUM: 14asj TAS: 58v^a ZEA: 54h
 QUE: 47* FIJ: 46* MEL: 41*
 MAL: 48*-jsgv RYU: 49trs MIC:
 42mpc(g) POL: 44c × CAP: 17n

Notadusta SCHILDER, 1935

- punctata* (LINNAEUS, 1771) (CAP: 17n) ZAN: 18z
 LEM: 11*-l (ERY: 19ta) IND:
 13c SUM: 14asj DAM: 15*-s QUE:
 47*-s FIJ: 46* MEL: 41* MAL:
 48*-gv RYU: 49tr(s) MIC: 42*-o
 (i) *trizonata* (SOWERBY, 1870) POL: 44cstmf
rabaulensis SCHILDER, 1964 MEL: 41b MAL: 48p
katsuae (KURODA, 1960) MAL: 48p RYU: 49rs
martini (SCHEPMAN, 1907) QUE: 47c MAL: 48mp
superstes (SCHILDER, 1930) FIJ: 46h

Palmadusta IREDALE, 1930

- asellus* (LINNAEUS, 1758) ZAN: 18z LEM: 11* IND:
 13c SUM: 14tasj DAM: 15*
 ZEA: 54h QUE: 47* FIJ: 46*
 MEL: 41* MAL: 48*-v RYU:
 49*-c MIC: 42*-o POL: 44fp(hu)
clandestina (LINNAEUS, 1767) CAP: 17n ZAN: 18*-sg
 LEM: 11* ERY: 19ta IND: 13mc
 SUM: 14asj DAM: 15*-s ZEA:
 54h QUE: 47* FIJ: 46* MEL:
 41* MAL: 48*-sgv RYU: 49*-c
 MIC: 42*-o POL: 44cp(hu)
artuffeli (JOUSSEAUME, 1876) RYU: 49*-c JAP: 37f
 MIC: 42o(m)
saualae (GASKOIN, 1843) SUM: 14t DAM: 15b QUE:
 47* MAL: 48p (RYU: 49s)
 MIC: 42p [rare, scattered]
contaminata (SOWERBY, 1832) CAP: 17n LEM: 11rs
 SUM: 14a DAM: 15e QUE: 47bc
 FIJ: 46c MEL: 41b MAL: 48cjsbpb
 RYU: 49r
lutea (GMELIN, 1791) (IND: 13c) SUM: 14sj DAM:
 15* MEL: 41g MAL: 48*-v
 RYU: 49*-c
 (p) *humphreysi* (GRAY, 1825) ZEA: 54h QUE:
 47* FIJ: 46*-h(s) MIC: 42j
ziczac (LINNAEUS, 1758) CAP: 17an ZAN: 18*(-sg)
 LEM: 11* ERY: 19* PER: 12oh(p)
 IND: 13mc SUM: 14aj(s) DAM:
 15e QUE: 47*-s FIJ: 46*-s MEL:
 41b(s) MAL: 48mtcp RYU: 49*-c
 MIC: 42mpc
diluculum (REEVE, 1845) CAP: 17n ZAN: 18imz
 ERY: 19a

(c) *virginalis* SCHILDER & SCHILDER, 1938 LEM:
11*-l ERY: 19a
lentiginosa (GRAY, 1825) (ERY: 19a) PER: 12*(-o)
IND: 13bmc

Purpuradusta SCHILDER, 1939

gracilis (GASKOIN, 1849) IND: 13c SUM: 14masj
ZEA: 54h QUE: 47* MEL:
41b(m) MAL: 48* RYU: 49*
JAP: 37f(c) MIC: 42mc(op)

(c) *irescens* (SOWERBY, 1870) DAM: 15* TAS:
58f

(i) *notata* (GILL, 1858) ZAN: 18z²(sg) ERY: 19*
PER: 12*

hammondae (IREDALE, 1939) DAM: 15*-s QUE: 47*-s

(s) *raysummersi* SCHILDER, 1960 MAL: 48p

fimbriata (GMELIN, 1791) CAP: 17an ZAN: 18z(im)
LEM: 11* (ERY: 19at) IND:
13c SUM: 14asj DAM: 15be
MEL: 41g MAL: 48mtcbp RYU:
49trs MIC: 42mp

(i) *unifasciata* (MIGHELS, 1845) FIJ: 46fs MIC:
42j POL: 44stgfm HAW: 43*

minoridens (MELVILL, 1901) (SUM: 14a) ZEA: 54h
QUE: 47* FIJ: 46* MEL: 41sb
MAL: 48p RYU: 49rs MIC: 42p
POL: 44*-mpj(g)

serrulifera (SCHILDER & SCHILDER, 1938) POL: 44*-j
(huc)

microdon (GRAY, 1828) SUM: 14j (ZEA: 54h) (QUE:
47cqt) FIJ: 46* MEL: 41sb MAL:
48mtbp(g) RYU: 49trs

(s) *chrysalis* (KIENER, 1843) ZAN: 18z LEM:
11amr ERY: 19ta

Blasicrura IREDALE, 1930

quadrinaculata (GRAY, 1824) SUM: 14msj DAM:
15* QUE: 47cqt (FIJ: 46f) MEL:
41* MAL: 48*-v RYU: 49tr MIC:
42pj(c)

luchuana (KURODA, 1960) RYU: 49r

(s) *dayritiana* (CATE, 1963) MAL: 48p

coxeni (COX, 1873) MEL: 41s

(m) *hesperia* SCHILDER & SUMMERS, 1963

MEL: 41bmag

pallidula (GASKOIN, 1849) SUM: 14j DAM: 15*
ZEA: 54h QUE: 47cqt FIJ:
46chf MEL: 41* MAL: 48*-g
RYU: 49tr MIC: 42p

(c) *summersi* (SCHILDER, 1958) FIJ: 46fts

interrupta (GRAY, 1824) IND: 13mc SUM: 14*-k
MAL: 48matjp

rashleighana (MELVILL, 1888) FIJ: 46c

(s) *eunota* (TAYLOR, 1916) HAW: 43hf × PAN:
88w

(p) *laticus* (MELVILL, 1888) HAW: 43*

teres (GMELIN, 1791) CAP: 17an ZAN: 18*-sg LEM:
11* IND: 13c SUM: 14*-k
DAM: 15* ZEA: 54h QUE: 47*
FIJ: 46* MEL: 41* MAL: 48*-sgv
RYU: 49*-c MIC: 42* POL:
44*-g(t) HAW: 43* × PAN: 88cp

(p) *subteres* (WEINKAUFF, 1881) POL: 44cstg
goodalli (SOWERBY, 1832) FIJ: 46s MIC: 42gc(m)
POL: 44*-j

Bistolida COSSMANN, 1920

kieneri (HIDALGO, 1906) ZAN: 18imz LEM: 11*
IND: 13c

(s) *depriesteri* (SCHILDER, 1933) SUM: 14*-k
ZEA: 54h QUE: 47* FIJ: 46*
MEL: 41* MAL: 48*-v RYU:
49tr(s) MIC: 42m

(i) *landeri* SCHILDER & GRIFFITHS, 1962 POL: 44p
oweni (SOWERBY, 1837) ZAN: 18z LEM: 11*-1

(i) *vasta* (SCHILDER & SCHILDER, 1938) CAP:
17n(a)

hirundo (LINNAEUS, 1758) ZAN: 18z LEM: 11*
(ERY: 19t) IND: 13mc SUM:
14* DAM: 15* ZEA: 54h QUE:
47*-s FIJ: 46* MEL: 41* MAL:
48* RYU: 49*-c MIC: 42*
POL: 44huc

ursellus (GMELIN, 1791) SUM: 14*-tk (DAM: 15b)
ZEA: 54h QUE: 47cqt FIJ:
46*(-s) MEL: 41* MAL: 48*-gv
RYU: 49trs MIC: 42g(e)

erythraeensis (SOWERBY, 1837) ERY: 19*

stolida (LINNAEUS, 1758) CAP: 17n ZAN: 18imz
LEM: 11amrs (IND: 13c) SUM:
14tsj DAM: 15be QUE: 47*-s
FIJ: 46* MEL: 41* MAL: 48mjsbp
RYU: 49*-c JAP: 37k MIC: 42*
POL: 44hufp

Ovatipsa IREDALE, 1931

chinensis (GMELIN, 1791) SUM: 14j DAM: 15*-s
QUE: 47* FIJ: 46*-t MEL:
41* MAL: 48mtp RYU: 49*-c
MIC: 42* POL: 44p(hu)

(i) *amiges* (MELVILL & STANDEN, 1915) HAW: 43h

- (i) *variolaria* (LAMARCK, 1810) CAP: 17an ZAN: 18*-sg LEM: 11* (ERY: 49tax)
 (m) *tortirostris* (SOWERBY, 1906) CAP: 17a(n)
 (p) *coloba* (MELVILL, 1888) ERY: 19a (PER: 12k) IND: 13bmc SUM: 14ma)

Cribraria JOUSSEAUME, 1884

- cribraria* (LINNAEUS, 1758) LEM: 11rcdl ERY: 19ta(m) IND: 13c SUM: 14*-k DAM: 15bes TAS: 58f QUE: 47*-s FIJ: 46* MEL: 41* MAL: 48*-acsv(j) RYU: 49trs MIC: 42*-o POL: hp × HAW: 43h
 (c) *comma* (PERRY, 1811) CAP: 17n ZAN: *-sg LEM: 11ams ERY: 19a
cribellum (GASKOIN, 1849) LEM: 11r
esontropia (DUGLOS, 1833) LEM: 11r
catholicorum SCHILDER & SCHILDER, 1938 QUE: 47c FIJ: 46ch MEL: 41sb
gaskoini (REEVE, 1846) HAW: 43hf × MIC: 42j
cumingi (SOWERBY, 1832) FIJ: 46s MIC: 42g(ce) POL: 44*-mpj

SUMMARY

This accurate and concise method to catalogue reliable and probable localities facilitates both to map the distribution of each species and subspecies, as well as to compose lists of cowries collected or expected at any locality. The communicated data answer our present knowledge which surely will be increased by future investigations.

LITERATURE CITED

- BORRADAILE, L. A.
 1914. Bibliography of the marine fauna: Synopsis of the classification. 2nd. ed. London: Challenger Soc.
- EKMAN, SVEN
 1935. Tiergeographie des Meeres. Leipzig. 142 pp.; 242 figs.
- HERTLEIN, LEO GEORGE & EDWIN C. ALLISON
 1960. Species of the genus *Cypraea* from Clipperton Island. The Veliger 2 (4): 94-95; plt. 22 (1 April 1960)
- HIDALGO, JOAQUIN GONZALES
 1906. Monografía de las especies vivientes del género *Cypraea*. Mem. Acad. Cienc. Madrid, 25: 1-240; (1907) 241-588; I to XV.
- INGRAM, WILLIAM MARCUS & KARL WALTON KENYON
 1945. Cypraeidae of the Admiralty Islands. Nautilus 58 (4): 129-134
- NOMURA, SHICHIHEI & KOTORA HATAI
 1936. A note on the zoological provinces in the Japanese Seas. Bull. Biogeogr. Soc. Japan 6 (21): 207-214; plt. 13
- SCHILDER, FRANZ ALFRED
 1924. Systematischer Index der rezenten Cypraeidae. Arch. Naturgesch. 90 (A.4): 179-214; 1 diagram
 1927. Revision der Cypraeacea (Moll. Gastr.). Arch. für Naturgesch. 91 (for 1925) (A. 10): 171 pp.; 1 diagram
 1932. Cypraeacea. In Fossilium Catalogus I: Animalia, part 55: 276 pp.
 1941. Verwandtschaft und Verbreitung der Cypraeacea. Arch. Molluskenk. 73 (2-3): 57-120; 2 plts.
 1943. Zur Verwandtschaft der Litoralfaunen. Arch. Molluskenk. 75 (2-3): 68-82; 2 maps
 1952. Einführung in die Biotaxonomie (Formenkreislehre). Jena, 162 pp.; 121 maps.
 1956. Lehrbuch der allgemeinen Zoogeographie. Jena, 150 pp.; 134 maps and diagrams.
 1960. Probleme der Zoogeographie. Zool. Anz. Suppl. 23: 369-373; 4 maps
 1964. The distribution of *Erronea walkeri* SOWERBY (Cypraeidae). Hawaiian Shell News, n.ser. 49: 7-8; 1 map
- SCHILDER, FRANZ ALFRED, & MARIA SCHILDER
 1938-1939. Prodrome of a monograph on living Cypraeidae. Proc. Malacol. Soc. London, 23(3-4): 119-231.
 1940. Die Verbreitung und Häufigkeit der rezenten Cypraeidae. Arch. Moll. 72 (2-3): 33-56
- SCHOTT, GERHARD
 1926. Geographie des Atlantischen Ozeans. 2nd. ed. Hamburg. 368 pp.; 28 plts.; 115 figs.
 1935. Geographie des Indischen und Stillen Ozeans. Hamburg. 413 pp.; 38 plts.; 114 figs.
- SPICER, VARNUM DENNIS PHILIP
 1941. Shells from Midway. Nautilus 55 (1): 1-2
- STEADMAN, W. R. & BERNARD C. COTTON
 1946. A key to the classification of the cowries (Cypraeidae). Rec. So. Austral. Mus. 8: 503-530; 6 plts.
- WHITLEY, G. P.
 1937. The Middleton and Elizabeth Reefs. Austral. Zoolologist 8: map on p. 199

